



1303 EAST DIVISION AVE

05-GF-113
(380)
LIGHT & WATER DEPARTMENT

CITY OF BARRON, WI 54812

Telephone (715) 537-3855

January 21, 2003

Mr. Jim Loock, Chief Electric Engineer
Public Service Commission
610 N. Whitney Way
P.O. Box 7854
Madison, WI 53707-7854

RE: In the Matter of Filing Reporting Requirements for Appropriate Inspection and Maintenance, PSC Rule 113.0607(6)

Dear Mr. Loock:

Enclosed for filing are 3 copies of Barron Light & Water's report to the commission, submitted every two years, showing compliance with its Preventative Maintenance Plan.

Very truly yours,

Rick Jari
General Foreman

Enclosures

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Electric Division

TWO YEAR REPORT DOCUMENTING COMPLIANCE WITH THE PREVENTATIVE MAINTENANCE PLAN

Barron Light and Water

**FILING DEADLINE
FEBRUARY 1, 2003**

January 21, 2003

Rick Jari

1303 East Division

Barron, Wisc. 54812

715-537-3855

blwd@chibardun.net

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STATION SERVICE

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This report format was prepared by the MEUW work group for PSC Rule 113.0607 for use by the 82 municipal electric utilities in Wisconsin and endorsed by PSC staff as meeting the requirements of Rule PSC 113.0607.

I Reporting Requirements: PSC 113.0607(6) states;

Each utility shall provide a periodic report to the commission showing compliance with its Preventative Maintenance Plan. The report shall include a list of inspected circuits and facilities, the condition of facilities according to established rating criteria, schedules established and success at meeting the established schedules.

II Inspection Schedule and Methods:

SCHEDULE:	MONTHLY	ANNUAL	EVERY 5 YEARS
Transmission ($\geq 69\text{Kv}$)		X	X
Substations	X	X	
Distribution (OH & UG)			X

METHODS: Five criteria groups will be used to complete the inspection of all facilities.

1. IR – infrared thermography used to find poor electrical connections and/or oil flow problems in equipment.
2. RFI - Radio Frequency Interference, a byproduct of loose hardware and connections, is checked using an AM radio receiver.
3. SI – structural integrity of all supporting hardware including poles, crossarms, insulators, structures, bases, foundations, buildings, etc.
4. Clearance – refers to proper spacing of conductors from other objects, trees and conductors.
5. EC – equipment condition on non-structural components such as circuit breakers, transformers, regulators, reclosers, relays, batteries, capacitors, etc.

Distribution facilities will be inspected by substation circuits on a 5 year cycle such that the entire system will be inspected every 5 years. Inspector instructions for inspecting all facilities and forms are included in the plan.

III Condition Rating Criteria

This criterion, as listed below, establishes the condition of a facility and also determines the repair schedule to correct deficiencies .

- 0) Good condition
- 1) Good condition but aging
- 2) Non-critical maintenance required – normally repair within 12 months
- 3) Priority maintenance required – normally repair within 90 days
- 4) Urgent maintenance required – report immediately to the utility and repair normally within 1 week

IV Corrective Action Schedule

The rating criteria as listed above determine the corrective action schedule.

V Record Keeping

All inspection forms and records will be retained for a minimum of 10 years. The inspection form contains all of the required critical information i.e. inspection dates, condition rating, schedule for repair and date of repair completion.

VI Reporting Requirements

A report and summary of this plan's progress will be submitted every two years with the first report due to the Commission by February 1, 2003. The report will consist of a cover letter documenting the percent of inspections achieved compared to the schedule and the percent of maintenance achieved within the scheduled time allowance.

VII Inspected Circuits and Facilities

Circuit # and description	Substation
#1 East Loop	Plant
#2 West Loop	Plant
#3 South	Maple
#4 West	VMaas
#5 South	VMaas
#6 East	VMaas
#7 East	Barron Supply
#8 North 2.4	Barron Supply
#9 North 13.8	Barron Supply

Base load and peaking generation, less than 50 megawatts per unit in size, is typically subject to pre-operational checks, in addition to checks and maintenance during and after periods of operation. Emergency generation is test run and maintained every quarter to confirm its operational readiness.

VIII Scheduling Goals Established and Success of Meeting the Criteria:

"It was this utility's goal to complete all monthly substation inspections, and to inspect 50% of the distribution system. (We do not have

transmission lines.) In addition, we expected to complete all scheduled maintenance resulting from the inspections within the prescribed time periods specified in the rating criteria.

All of the inspection goals were met or exceeded. 2 urgent maintenance items were found and repaired within 7 days. Of the 8 non critical maintenance items found, 6 were repaired. The remaining 2 will be repaired in the spring of 2003.

IX Facility condition – rating criteria:

“During the past two years, 50% of the distribution system was inspected and all substation inspections were completed on time. Of the items found requiring maintenance, all were repaired before they were responsible for an outage to customers. Storm related outages have been minimal except for a major storm June 11, 2001, in which a majority of our customers were out for some period from 1 hour to 72 hours. Equipment failure only accounted for 3 outages affecting 95 residential customers. 30% of our system is over 20 plus years and is under an upgrade plan for the next 5-7 years, the rest of the system is 20 years or less and is in very good condition.